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EXAMINER

SHEWAREGED, BETELHEM

ART UNIT	PAPER NUMBER
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1794

MAIL DATE	DELIVERY MODE
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01/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/823,920

Applicant(s)

RANGWALLA, IMTIAZ

Examiner

Betelhem Shewareged

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,8-12,18,20,22-38,40,41 and 44-47 is/are pending in the application.
- 4a) Of the above claim(s) 27-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,8-12,18,20,22-26,38,40,41 and 44-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's response along with the Request Continued Examination (RCE) filed on 10/24/2007 has been fully considered. Claims 1, 8, 10, 11, 18, 20, 22, 23, 25, 38, 40 and 41 are amended, claims 6, 7, 13-17, 19, 21, 39, 42 and 43 are canceled, claims 44-47 are added, and claims 1-5, 8-12, 18, 20, 22-38, 40, 41 and 44-47 are pending. Currently, claims 27-37 are withdrawn from consideration as non-elected invention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 4, 8, 10-12, 40, 41, 44 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Edlein et al. (US 6,528,127 B1).

4. Claims 1, 3, 40, 41, 44 and 45: Edlein teach a printed packaging material comprising a marking containing a pigment provided on a primary surface of the packaging film, and a pigment free coating/overcoat is provided over the marking, wherein the coating/overcoat is polymerized by radiation to form a protective layer over the printed marking (abstract). The marking meets the claimed ink formulation, and the coating meets the claimed lacquer layer. The marking comprises ink containing pigments and carrier resins such as acrylate, epoxide and ester functionalities (col. 9, lines 44-67). The pigment meets the claimed ink and the carrier resins meet the

claimed energy-curable material. The overcoat layer comprises ester of (meth) acrylic acid, ethoxylated or propoxylated derivatives thereof (col. 10, line 56 thru col. 11, line 10). The ink is solvent based (col. 10, lines 6 and 7). After the ink is applied to the film and before sealing with the overcoat, the solvent in the ink is caused to evaporate by means of heat or forced air (col. 10, lines 24-44).

5. The Office realizes that all of the claimed effects or physical properties are not positively stated by the reference(s). However, the reference(s) teaches all of the claimed ingredients. Therefore, the claimed effects and physical properties, i.e. chemical bonding such as covalent or cross-linking between the ink and the overcoat would implicitly be achieved by a composite with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support the applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients.

6. Claim 4: Edlein teaches the film can be made from olefins (col. 4, line 50) or polyester and/or polyamide (col. 6, line 60).

7. Claim 8: Edlein teaches the overcoat is applied to substantially all of the film surface which has been printed (col. 10, line 46).

8. Claims 10 and 11: Edlein teaches the polymerization is done by exposure to highly accelerated particles generated by a particle beam processing device operating at a voltage in a range of 50-250 keV (col. 11, line 61).

9. Claim 12: With respect to energy emitted by the highly accelerated particles, it is elementary that the mere recitation of newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art. *In re Swinehart et al.*, 169 USPQ 226 at 229. Since the Edlein reference teaches Applicant's highly accelerated particles generated by radiation, it is inherent that the reference highly accelerated particles function in the same manner claimed by Applicant. The burden is upon Applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

10. Claims 20, 18 and 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Edlein et al. (US 6,528,127 B1).

11. Claims 20, 22, 23, 25 and 26: Edlein teach a printed packaging material comprising a marking containing a pigment provided on a primary surface of the packaging film, and a pigment free coating/overcoat is provided over the marking, wherein the coating/overcoat is polymerized by radiation to form a protective layer over the printed marking (abstract). The marking meets the claimed ink formulation, and the coating meets the claimed lacquer layer. The marking comprises ink containing pigments and carrier resins such as acrylate, epoxide and ester functionalities (col. 9, lines 44-67). The pigment meets the claimed ink and the carrier resins meet the claimed energy-curable material. The overcoat layer comprises ester of (meth) acrylic acid, ethoxylated or propoxylated derivatives thereof (col. 10, line 56 thru col. 11, line 10). The ink is solvent based (col. 10, lines 6 and 7). After the ink is applied to the film

and before sealing with the overcoat, the solvent in the ink is caused to evaporate by means of heat or forced air (col. 10, lines 24-44).

12. The Office realizes that all of the claimed effects or physical properties are not positively stated by the reference(s). However, the reference(s) teaches all of the claimed ingredients. Therefore, the claimed effects and physical properties, i.e. chemical bonding such as covalent or cross-linking between the ink and the overcoat would implicitly be achieved by a composite with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support the applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients.

13. Claim 18: Edlein teaches the overcoat is applied to substantially all of the film surface which has been printed (col. 10, line 46).

14. Claim 24: The Office realizes that all of the claimed effects or physical properties are not positively stated by the reference(s). However, the reference(s) teaches all of the claimed ingredients. Therefore, the claimed effects and physical properties, i.e. interpenetrating network would implicitly be achieved by a composite with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support the applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients.

15. Claim 38: Edlein teach a printed packaging material comprising a marking containing a pigment provided on a primary surface of the packaging film, and a pigment free coating/overcoat is provided over the marking, wherein the coating/overcoat is polymerized by radiation to form a protective layer over the printed marking (abstract). The marking meets the claimed ink formulation, and the coating meets the claimed lacquer layer. The marking comprises ink containing pigments and carrier resins such as acrylate, epoxide and ester functionalities (col. 9, lines 44-67). The pigment meets the claimed ink and the carrier resins meet the claimed energy-curable material. The overcoat layer comprises ester of (meth) acrylic acid, ethoxylated or propoxylated derivatives thereof (col. 10, line 56 thru col. 11, line 10). The ink is solvent based (col. 10, lines 6 and 7). After the ink is applied to the film and before sealing with the overcoat, the solvent in the ink is caused to evaporate by means of heat or forced air (col. 10, lines 24-44).

16. The Office realizes that all of the claimed effects or physical properties are not positively stated by the reference(s). However, the reference(s) teaches all of the claimed ingredients. Therefore, the claimed effects and physical properties, i.e. chemical bonding between the ink and the overcoat would implicitly be achieved by a composite with all the claimed ingredients. If it is the applicant's position that this would not be the case: (1) evidence would need to be provided to support the applicant's position; and (2) it would be the Office's position that the application contains inadequate disclosure that there is no teaching as to how to obtain the claimed properties with only the claimed ingredients.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claims 5 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edlein et al. (US 6,528,127 B1) as applied to claim 1 above.

19. Claim 5: Edlein does not teach the thickness of the overcoat in gsm. The experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the coating amount of the overcoat, and the motivation would be to enhance the protection property of the overcoat while maintaining the flexibility of the packaging material. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

20. Claim 46: Edlein does not teach the amount of carrier resin in the ink. The experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the amount of carrier resin, and the motivation would be to eliminate penetration of contaminant or unreacted material into the product to be packaged. A

prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

21. Claim 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edlein et al. (US 6,528,127 B1) as applied to claim 20 above.

22. Edlein does not teach the amount of carrier resin in the ink. The experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the amount of carrier resin, and the motivation would be to eliminate penetration of contaminant or unreacted material into the product to be packaged. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

23. Claims 1-5, 8-12, 18, 20, 22-26, 38, 40, 41 and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rangwalla et al. (US 2003/0001108 A1) in view of Edlein et al. (US 6,528,127 B1).

24. Rangwalla discloses a packaging material comprising a substrate, a lacquer coating on the substrate, and an ink print layer between the substrate and the ink print layer, wherein the lacquer coating substantially identical to the claimed lacquer ([0097]-

[0108]), and has a normalized thickness of 0.5-20 g/m² [0109]. The substrate is disclosed in [0112]. The lacquer is curable by particle beam machine [0110] and [0111]. Sandwiching the print layer and any intermediate layer between materials that are used for forming the substrate is well known in the packaging material art (see Example 8). The ink in the print layer can be solvent based or water based [0116]. Rangwalla does not describe the ink as recited in the claimed invention. However, Edlein teaches a printed packaging material comprising a marking containing a pigment provided on a primary surface of the packaging film, and a pigment free coating/overcoat is provided over the marking, wherein the coating/overcoat is polymerized by radiation to form a protective layer over the printed marking (abstract). The marking meets the claimed ink formulation, and the coating meets the claimed lacquer layer. The marking comprises ink containing pigments and carrier resins such as acrylate, epoxide and ester functionalities (col. 9, lines 44-67). The pigment meets the claimed ink and the carrier resins meet the claimed energy-curable material. The ink is solvent based (col. 10, lines 6 and 7). After the ink is applied to the film and before sealing with the overcoat, the solvent in the ink is caused to evaporate by means of heat or forced air (col. 10, lines 24-44).

25. Rangwalla and Edlein are analogous art because they are from the same field of endeavor that is the printed packaging material. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the ink composition of Edlein with the invention of Rangwalla, and the motivation would be, as Edlein

suggests, to eliminate the possibility of migration of contaminate such as unreacted material into the product to be packaged (col. 10, line 53-55).

26. With respect to claim 46 and 47: Edlein does not teach the amount of carrier resin in the ink. The experimental modification of this prior art in order to ascertain optimum operating conditions fails to render applicants' claims patentable in the absence of unexpected results. *In re Aller*, 105 USPQ 233. One of ordinary skill in the art would have been motivated to adjust the amount of carrier resin, and the motivation would be to eliminate penetration of contaminant or unreacted material into the product to be packaged. A prima facie case of obviousness may be rebutted, however, where the results of the optimizing variable, which is known to be result-effective, are unexpectedly good. *In re Boesch and Slaney*, 205 USPQ 215.

Response to Arguments

27. Applicant's arguments with respect to claims 1-5, 8-12, 18, 20, 22-26, 38, 40, 41 and 44-47 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 571-272-1529. The examiner can normally be reached on Mon.-Fri. 8:00AM-4:30PM.


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29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BS
January 5, 2008.


BETELHEM SHEWAREGED
PRIMARY EXAMINER